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13 July 2000

- ❑ *U.S. Postal Service*
- ❑ *Via Local Courier*
- ❑ *Via International Courier*
- ❑ *Via Facsimile No.* _____
- ❑ *Via E-Mail Attachment*
- ❑ *Please Acknowledge Receipt*

The Assistant Commissioner of Patents
Washington, D.C. 20231

Attorney Docket No.: P56063

Sir:

Submitted herewith is the following patent application:

Inventor: **YANG-YEON LEE**

Title: **METHOD FOR INFORMING A TRANSMITTING PART OF ERROR OCCURRENCE IN A RECEIVING PART OF A FACSIMILE**

Please find attached hereto an application for patent which includes: Specification and Abstract, Claims, and a certified copy of the foreign priority document identified below:

Verified Showing of Small Entity Status: NO

Drawings: Formal drawings, 4 sheets, Figures 1 through 5

Claim of priority under 35 U.S.C. §119: **YES**

REPUBLIC OF KOREA Application No. 99-29100 filed in Korea on19 July 1999

Fee (see formula below): **CHECK IS ENCLOSED**

Basic Fee $345/690	$690.00
Additional Fees:	
Total number of claims in excess of 20: 0 times $9/18	$0.00
Number of independent claims in excess of 3: 0 times $39/78	$0.00
Multiple dependent claims $130/260	$0.00
An Assignment is likewise enclosed: Recording Fee $40	$40.00
Filing Non-English specification	$0.00
TOTAL FEES FOR THE ABOVE APPLICATION	**$730.00**

Inventor: **YANG-YEON LEE**

Title: **METHOD FOR INFORMING A TRANSMITTING PART OF ERROR OCCURRENCE IN A RECEIVING PART OF A FACSIMILE**

Should the enclosed check become lost or detached from the file, the Commissioner is authorized to charge for any additional charges incurred, or credit any excess payment to the Deposit Account No. 02-4943. Kindly notify the undersigned attorney of any transaction regarding our Deposit Account.

In view of the above, it is requested that this application be accorded a filing date pursuant to 37 CFR 1.53(b).

Please address all corresponding to :

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Respectfully submitted,

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TITLE

METHOD FOR INFORMING A TRANSMITTING MODULE OF ERROR OCCURRENCE IN A RECEIVING PART OF A FACSIMILE

CLAIM FOR PRIORITY

This application makes reference to, incorporates herein and claims all rights accruing under 35 U.S.C. §119 from my earlier filing in the Korean Industrial Property Office of an application for a patent entitled *Method For Informing A Transmitting Part Of Error Occurrence In A Receiving Part Of A Facsimile* on the 19th day of July 1999, a copy of which is annexed hereto.

BACKGROUND OF THE INVENTION

Field of the Invention

This invention relates to a process for informing a transmitting facsimile machine of error occurrence in a receiving facsimile machine of a facsimile. More specifically, the present invention stores transmitting subscriber identification (TSI) information that is the telephone number of the transmitting facsimile machine, calls the telephone number in the event that a communication line is cut off due to error

occurrence in recei ving facsimile data, and informs the transmitting facsimile machine of error information including the contents of the error occurring in the receiving facsimile machine and the telephone number of another receiving facsimile machine that is capable of serving for the first receiving facsimile machine.

Description of the Related Art

Generally, a facsimile includes a scanner for reading a document, a printer for outputting data in shape of letters, and a communication member such as a telephone cable for transmitting/receiving data to/from the other party in a wide area and the components are integrally formed to allow documents to be exchanged between two parties. In order to transmit and receive fax data using such a facsimile, protocols are exchanged between the transmitting facsimile machine (*i.e.*, a transmitter) and the receiving facsimile machine (*i.e.*, a receiver). In the event that an error within the receiving facsimile machine such as, by way of example, a paper jam, depletion of the paper empty, a toner low condition, a full memory and the like, while facsimile data is being transmitted from the transmitting facsimile machine to the receiving facsimile, the receiving facsimile can not receive further data. Accordingly, the receiving facsimile transmits a disconnect command (*i.e.*, a DCN signal) that

indicates the termination of communication, to the transmitting facsimile and cuts off the communication line.

I have noticed that when the line of communication line is interrupted or otherwise disc ontinued due to the occurrence of an error at the receiver, the transmitter module tries to re-transmit the facsimile data. When the error in the receiver continues, the call from the transmitter may not completed within Phase A. As a result, the transmitter does not know that the error has occurred in the receiver and continuously tries to transmit fax data from the transmitting facsimile machine. Moreover, I have found that the transmitter is unable to determine the type of error occurring in the receiver, and in the event that the transmitter does not know the number of another facsimile, the transmitter continuously redials the same number until the call has been completed with the receiver.

SUMMARY OF THE INVENTION

It is therefore an object of the present invention to provide an improved apparatus and process for facsimile telecommunication.

It is another object to provide to provide apparatus and process able to compensate for errors that occur during the reception of facsimile

telecommunications.

It is still another object to provide a process for transmitting error information including contents of error occurring in the receiving facsimile machine and the telephone number of another facsimile which is capable of receiving fax data instead of the error occurred receiving facsimile machine so that fax data can be continuously transmitted even though the error occurs in the receiving facsimile machine while the fax data is being transmitted.

These and other objects may be attained with a facsimile circuit and process that informs the transmitting facsimile machine of error occurrence in a first receiving facsimile machine of a facsimile, by inputting the telephone number of a second facsimile for receiving fax data when an error occurs in the first receiving facsimile machine while the first receiving facsimile machine receives the fax data; when a ring signal is input from the transmitting facsimile machine of the fax data, forming a communication line, exchanging protocols and storing the telephone number of the transmitting facsimile machine that is TSI information among the protocols received from the transmitting facsimile machine; printing the fax data received from the transmitting facsimile machine and checking whether an error occurs or not at the same time; if an error occurs, detecting an error message corresponding to the error

from a pre-stored error table and storing the error message; after the communication line is cut off from the transmitting facsimile machine due to the error occurrence, detecting the telephone number of the transmitting facsimile machine and forming the communication line; and when the communication line with the transmitting facsimile machine is formed, transmitting error information occurring in the facsimile of the receiving facsimile machine to the transmitting facsimile machine.

The error information includes at least the telephone number of the second facsimile and the error message. When the telephone number of the transmitting facsimile machine and the communication line are formed, the error information is changed into bit-map data. The error information of the facsimile of the receiving facsimile machine transmitted to the transmitting facsimile machine is printed in the facsimile of the transmitting facsimile machine in a predetermined way. Preferably, the error table is a look-up table including error messages respectively corresponding to at least one error that may occur in the facsimile.

BRIEF DESCRIPTION OF THE DRAWINGS

A more complete appreciation of this invention, and many of the attendant advantages thereof, will be readily apparent as the same becomes better understood

by reference to the following detailed description when considered in conjunction with the accompanying drawings in which like reference symbols indicate the same or similar components, wherein:

Fig. 1 is a conceptional view illustrating a protocol for transmitting and receiving facsimile telecommunications data;

Fig. 2 is a schematic block diagram of a facsimile telecommunications system suitable for the practice of the present invention;

Fig.3 is a flowchart illustrating the storage of error information when an error occurs within the receiving facsimile machine;

Fig. 4 is a flowchart illustrating the transmission of error information stored by the operation shown by Fig. 3, to the transmitting facsimile machine; and

Fig. 5 is an embodiment of a report received from the transmitting facsimile machine in which the error information of the receiving facsimile machine is included.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

Turning now to the drawings, Figure 1 is a conceptional view illustrating protocol for transmitting and receiving fax data. Calls are placed during in Phase A.

The transmitting facsimile machine, while in an hook-off state, transmits a calling tone (CNG) signal to the receiving facsimile machine by dialing until the receiving facsimile machine responds. Upon reception of the CNG signal from the transmitting facsimile machine, the receiving facsimile machine transmits a called station identification (CED) signal, that is, a responsive signal, to the transmitting facsimile machine.

In Phase B, states of terminals and transmitting lines are checked and the terminals are controlled. At this time, the transmitting and receiving standby states and the synchronizing state of the terminals are checked and the fax data is prepared to be transmitted. More particularly, during Phase B, the receiving facsimile machine transmits the CED signal to the transmitting facsimile machine and then transmits non-standard facilities signals (NSF) used for recognizing specific user demand that cannot be covered by T recommendation, called subscriber identification (CSI) used for supplying a specific identifying member of a subscriber of the receiving facsimile machine by means of an international telephone number, and a digital identification signal (DIS) that specifies the standard CCITT capability of equipments of the receiving facsimile machine to the transmitting facsimile machine.

The transmitting facsimile machine understands the state of the receiving

facsimile machine by receiving signals transmitted from the receiving facsimile machine and then transmits non-standard facilities set-up (NSS) that is a digital command responding to information included in the NSF signal, transmitting subscriber identification (TSI) used for supplying a specific identifying member of a subscriber of the transmitting facsimile machine by means of the international telephone number, and a digital command signal (DCS) that is a digital setup command responding to the standard capacity checked by the DIS signal.

When an environment for transmitting fax data is fixed as described above, the transmitting facsimile machine finally determines fax data transmitting speed between the transmitting facsimile machine and the receiving facsimile machine through a training check (TCF) process and the receiving facsimile machine transmits confirmation to receive (CFR) that is a responding signal for confirming start of message transmission corresponding to TCF of the transmitting facsimile machine.

In Phase C, message transmission, message transmission check and synchronization maintenance is performed.

In Phase D, message and reception is terminated. The transmitting facsimile machine transmits end of procedure (EOP) showing completion of message transmission, and the receiving facsimile machine transmits message confirmation

(MCF) showing that entire message is satisfactorily received to the transmitting facsimile machine. As receiving the MCF from the receiving facsimile machine, the transmitting facsimile machine transmits disconnect (DCN) that is a command showing termination of communication and cuts off the communication line.

As described above, fax data transmission between the transmitting facsimile machine and the receiving facsimile machine is performed through exchange of protocols. However, in the event that an error such as paper jam, paper empty, toner low, memory full and the like occurs in the receiving facsimile machine while fax data is transmitted from the transmitting facsimile machine to the receiving facsimile machine, the receiving facsimile machine cannot receive further data. Accordingly, the receiving facsimile machine transmits the DCN to the transmitting facsimile machine and cuts off the communication line.

When the communication line is cut off due to error occurrence in the receiving facsimile machine, the transmitting facsimile machine tries to transmit fax data again. However, in the case that the error occurring in the receiving facsimile machine is not removed, call is not determined in Phase A. As a result, the transmitter does not know the error occurrence in the receiving facsimile machine and continuously tries to transmit fax data from the transmitting facsimile machine. Moreover, the

transmitter cannot check the sort of the error occurring in the receiving facsimile machine and in the event that the transmitter does not know the number of another facsimile, the transmitter needs to continuously dial the same number until the call is formed with the receiving facsimile machine.

The present invention will now be described more fully hereinafter with reference to the accompanying drawings. Like reference symbols in the drawings indicate the same or similar components. Specification of components, such as components of circuits are provided for description purpose. It is therefore apparent to those skilled in this art that the present invention can be embodied without the specified components. The detailed description might be omitted when it is determined that related prior art or the detailed description of the structure may unnecessarily make indistinct the point of the present invention.

Figure 2 is a schematic block diagram of a facsimile applied to the present invention, Figure 3 is a flowchart of storing error information when an error occurs in the receiving facsimile machine, Figure 4 is a flowchart of transmitting the error information stored by the operation of Figure 3 to the transmitting facsimile machine; and Figure 5 is an embodiment of a report received from the transmitting facsimile machine in which the error information of the receiving facsimile machine is

included.

Referring to Figure 2, a controller 10 generally controls the system according to a predetermined program. Particularly, the controller controls the system to transmit the telephone number of a second facsimile which is stored in advance and error information to the transmitting facsimile machine in the event that an error occurs while the fax data is received.

Thus, the invention provides a facsimile transmitting apparatus that includes a means (an informing means) for furnishing information to the apparatus concerning error occurrence the structures that accomplish this function are described next. As will appear, in a preferred embodiment of the invention, the informing means comprises a means for furnishing the transmitting facsimile apparatus with information concerning contents of an error (for example, "out of paper" error) occurring at the receiving facsimile apparatus as well as a telephone number of a second facsimile apparatus that is capable of receiving the facsimile message when the first facsimile machine is inoperative, for example, out of paper.

A memory 20 includes an operation program for operating controller 10 and a general control program, and stores data produced by program performance of controller 10. Particularly, according to a preferred embodiment of the present

invention, the telephone number of the second facsimile is input by a user through an operational panel 40 in order to receive the fax data instead of the first facsimile, in the event that an error occurs while the first facsimile receives fax data. An error table including messages corresponding to various errors that may occur while the fax data is received is stored in memory 20. Furthermore, TSI information showing the telephone number of the transmitting facsimile machine among the signals received from the transmitting facsimile machine while the protocol is exchanged is stored in the memory in order to transmit the pre-stored telephone number of the second facsimile and the error information detected from the error table to the transmitting facsimile machine, in the event that an error occurs while the fax data is received.

The telephone number of the second facsimile stored in memory 20 and an error message corresponding to the error occurring while the fax data is received among the error messages stored in the error table are stored in an error buffer 30 according to the control of controller 10, in the event that an error occurs while fax data is received. Operational panel 40 includes a plurality of keys. Operational panel 40 supplies controller 10 with key data output when the keys are pressed and includes a displaying member for displaying the operating state of the system by means of display data of controller 10. A scanner 50 scans a document, converts the image of

the document into binary data, and supplies controller 10 with the binary data.

A modem 60 modulates and demodulates input and output signals of controller 10. A network control unit (NCU) 70 forms a communication line between a public switching telephone network (PSTN) and modem 60 according to control of controller 10. A printer 80 prints data received from external environment through modem 60 or data scanned in scanner 50 and stored in memory 20 according to control of controller 10. A sensor 90 inputs the state of the document and papers into controller 10 and a speaker 100 generates a warning sound corresponding to a control signal of controller 10.

The operation of the invention having the above-mentioned structure will be described in detail with reference to Figures 3 to 5. Figure 3 is a flowchart for storing error information to be transmitted to the transmitting facsimile machine in the event that an error occurs in the receiving facsimile machine. First, a user inputs the telephone number of the second facsimile through operational panel 40 to receive the fax data instead when fax data cannot be received due to error occurrence (S301). Controller 10 stores the telephone number of the second facsimile input by the user in memory 20 (S302). Thereafter, controller 10 checks whether a ring signal is input from external environment through the PSTN or not (S303). If the ring signal is

input, controller 10 forms a communication line and performs protocol exchanges (S304).

Controller 10 exchanges protocols with the transmitting facsimile machine by controlling modem 60 and NCU 70, detects the TSI information received from the transmitting facsimile machine, i.e., the telephone number of the transmitting facsimile machine in Phase B and stores the telephone number in memory 20 (S305). Then, controller 10 receives data transmitted from the transmitting facsimile machine, prints the data through printer 80 (S306) and checks whether the data is completely received or not (S307).

If it is checked that the data is completely received, the communication line with the transmitting facsimile machine is cut off (S308). Otherwise, if it is checked that the data is not completely received, it is checked whether an error occurs in the facsimile or not (S309). If it is checked that an error does not occur in the facsimile, step S309 is followed by step S306 to receive data from the transmitting facsimile machine. Otherwise, if it is checked that an error occurs in the facsimile and it is impossible to receive further fax data, controller 10 determines the sort of the error occurring in the facsimile and dete cts an error message corresponding to the determined error from the error table stored in memory 20 (S310).

The error table includes various error messages respectively corresponding to the errors that may occur in the facsimile in look-up table style. The error table is stored when the facsimile is manufactured. Controller 10 stores the telephone number of the second facsimile input by the user at step S301 and the error message detected at step S310 in error buffer 30 (S311). Step S311 is followed by step S308 of cutting off the communication line with the transmitting facsimile machine. Now, the process of transmitting the error information including the error message generated in the receiving facsimile machine and the telephone number of the second facsimile to the transmitting facsimile machine in the event that an error occurs in the receiving facsimile machine while the fax data is transmitted will be described with reference to Figure 4.

Figure 4 is a flowchart for transmitting the error information stored in error buffer 30 according to the operation of Figure 3 to the transmitting facsimile machine. In the event that the communication line with the transmitting facsimile machine is cut off due to the error occurrence in the facsimile of the receiving facsimile machine while the fax data is received, controller 10 converts the error information stored in error buffer 30, *i.e.*, the telephone number of the second facsimile and the error message into bit-map data (S401). When the telephone number of the second

facsimile and the error message is completely converted into bit-map data, TSI information (telephone number of the transmitting facsimile machine) detected at step S305 of Figure 3 and stored in memory 20 is detected (S402) and the detected telephone number is dialed (S403).

When a communication line with the transmitting facsimile machine is formed, controller 10 transmits the bit-map data converted and stored in error buffer 30 at step S401 (S405). Therefore, even though the communication line is cut off due to the error occurrence in the receiving facsimile machine while the fax data is transmitted, the transmitting facsimile machine can continuously transmit the transmission-interrupted fax data according to the error information including the contents of the error and the telephone number of the second facsimile which is capable of receiving the fax data instead. In other words, the transmitting facsimile machine can easily checks the state of the receiving facsimile machine by outputting the error information transmitted from the receiving facsimile machine as shown in Figure 5. Therefore, the transmitting facsimile machine can transmit fax data that is not completely transmitted to the second receiving facsimile machine.

The several embodiments of this invention has been described above with reference to the aforementioned embodiments. It is evident, however, that may

alternatives, modifications and variations will be apparent to those having skill in the art in light of the foregoing description. Accordingly, the present invention embraces all such alternatives, modifications and variations as fall within the spirit and scope of the appended claims and their equivalents.

The foregoing paragraphs describe a process and telecommunications circuit able to compensate for the unexpected occurrence of a malfunction within the receiving facsimile machine that prevents the prompt transmission of facsimile data from the transmitting facsimile machine to the malfunctioning receiving machines, by the expedient of storing the transmitting subscriber identification (TSI) information, that is, the telephone number of the transmitting facsimile machine, and having the receiving facsimile machine call that telephone number in the event that a communication line is cut off due to error occurrence in receiving facsimile data, and inform the transmitting facsimile machine of error information including the contents of the error occurring in the receiving facsimile machine and the telephone number of an alternate receiving facsimile machine that is capable of serving for the first receiving facsimile machine. According to the principles of the present invention, the receiving facsimile machine informs the transmitting facsimile machine of error occurrence in the receiving facsimile machine of the facsimile, the

transmitting facsimile machine is infor med of error information including the contents of the error occurring in the receiving facsimile machine and the telephone number of the second receiving facsimile machine in the event that an error occurs while fax data is received and that it is impossible to receive further fax data. Therefore, the transmitting facsimile machine can continuously transmit the fax data to the second receiving facsimile machine according to the second receiving facsimile machine and contents of error report transmitted from the error-occurred receiving facsimile machine. As a result, the present invention provides advantages of easy check of the contents of the error occurring in the receiving facsimile machine and rapid transmission of the fax data.

WHAT IS CLAIMED IS:

1. In a process for transmitting a facsimile message from a transmitting facsimile machine to a receiving facsimile machine, a subprocess for informing the transmitting facsimile machine of error occurrence at a first receiving facsimile machine, said subprocess comprising the steps of:

(1) inputting a telephone number of a second receiving facsimile when an error occurs at said first receiving facsimile machine while said first receiving facsimile machine receives said facsimile message;

(2) when a ring signal is input from said transmitting facsimile machine, forming a communication line, exchanging protocols of said transmitting facsimile machine and of said first receiving facsimile machine and storing a telephone number of said transmitting facsimile machine among said protocols received from the transmitting facsimile machine;

(3) printing said fax data received from said transmitting facsimile machine and simultaneously checking whether an error occurs;

(4) when an error occurs, detecting an error message corresponding to said error from a pre-stored error table and storing said error message;

(5) when said communication line is cut off from said transmitting facsimile machine due to said error occurrence, detecting said telephone number of said transmitting facsimile machine and forming a communication line therewith; and

(6) when said communication line with said transmitting facsimile machine is formed, transmitting error information occurring at said receiving facsimile machine.

2. The process of claim 1, wherein said error information includes at least said telephone number of said second receiving facsimile machine and said error message.

3. The process of claim 2, wherein, before said communication line with said transmitting facsimile machine is cut off, said telephone number of said second receiving facsimile machine and said error message are stored in an error buffer.

4. The process of claim 1, further comprising the step of converting said error information into bit map data when said telephone number of said transmitting facsimile machine is detected and said communication line is formed.

5. The process of claim 1, wherein said error information of said facsimile

message is printed in said facsimile message.

6. The process of claim 1, wherein said error table is a look-up table including error messages respectively corresponding to at least one error that may occur in said facsimile message.

7. In a facsimile transmitting apparatus adapted for transmitting a facsimile message to a first facsimile receiving machine, said facsimile transmitting apparatus comprising:

a scanner for reading a document;

means for transmitting and receiving information;

means for exchanging protocols with said first facsimile receiving machine; and

a printer;

the improvement comprising: an informing means for furnishing information concerning error occurrence, to the facsimile transmitting apparatus.

8. The apparatus of claim 7, wherein the informing means comprises means

for furnishing the facsimile transmitting apparatus with information concerning contents of an error occurring at the first facsimile receiving machine, and a telephone number of a second facsimile receiving machine that is capable of receiving the facsimile message in the event of error at the first facsimile receiving machine.

9. The apparatus of claim 8, wherein the informing means comprises:

means for inputting a telephone number of a second facsimile receiving machine when an error occurs in said first facsimile receiving machine while said first facsimile receiving machine receives said facsimile message;

means for forming a communication line, means for exchanging protocols of said facsimile transmitting apparatus and of said first facsimile receiving machine, and means for storing a telephone number of said facsimile transmitting machine among said protocols received from the facsimile transmitting apparatus when a ring signal is input from said facsimile transmitting apparatus;

means for printing said facsimile message received from said transmitting facsimile apparatus and simultaneously checking whether an error

occurs or not;

means for detecting an error message corresponding to said error from a pre-stored error table, if an error occurs, and means for storing said error message;

means for detecting said telephone number of said facsimile transmitting apparatus and forming a communication line therewith, when said communication line is cut off from said facsimile transmitting apparatus due to said error occurrence; and

means for transmitting error information occurring in said facsimile message to said facsimile transmitting apparatus, when said communication line with said facsimile transmitting apparatus is formed.

10. The apparatus of claim 9, wherein the informing means comprises means for including said telephone number of said second facsimile receiving machine and said error message.

11. The apparatus of claim 9, wherein the informing means comprises means for storing in an error buffer said telephone number of said second facsimile receiving

machine and said error message, before said communication line with said facsimile transmitting apparatus is cut off.

12. The apparatus of claim 9, wherein the informing means comprises means for converting said error information into bit map data when said telephone number of said facsimile transmitting apparatus is detected and said communication line is formed.

13. The apparatus of claim 9, wherein the informing means comprises means for printing in said facsimile message said error information of said facsimile message.

14. The apparatus of claim 9, wherein the informing means comprises a look-up table including error messages respectively corresponding to at least one error that may occur in said facsimile message.

ABSTRACT

A process and apparatus for informing a transmitting facsimile machine of error occurrence in a first receiving facsimile machine, including the steps of: inputting the telephone number of a second facsimile machine; when a ring signal is input from the transmitting facsimile machine of the fax data, forming a communication line, exchanging protocols and storing the telephone number of the transmitting facsimile machine among the protocols, received from the transmitting facsimile machine; printing the fax data received from the transmitting facsimile machine and checking whether an error occurs or not at the same time; if an error occurs, detecting an error message corresponding to the error from a pre-stored error table and storing the error message; after the communication line is cut off from the transmitting facsimile machine due to the error occurrence, detecting the telephone number of the transmitting facsimile machine and forming a communication line; and when the communication line with the transmitting facsimile machine is formed, transmitting error information to the transmitting facsimile machine.

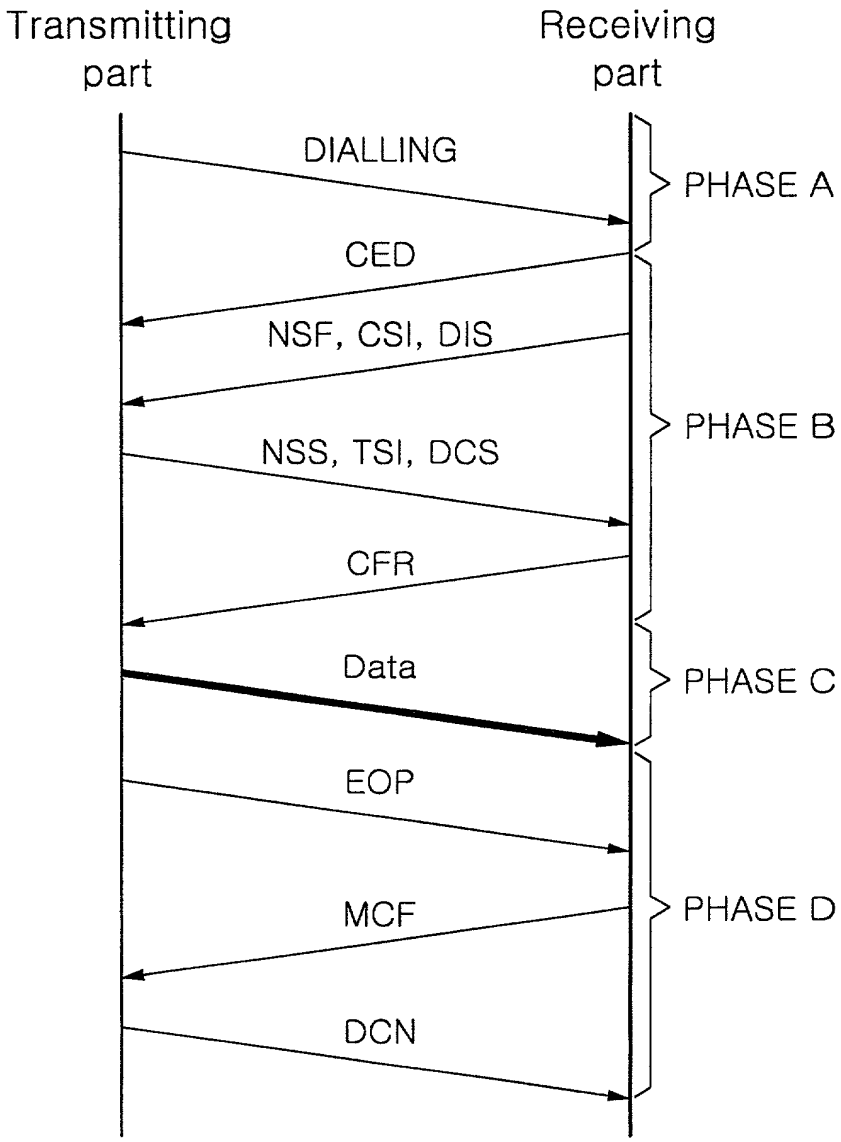
Transmitting part
Receiving part
DIALLING
CED
NSF, CSI, DIS
NSS, TSI, DCS
CFR
Data
EOP
MCF
DCN
PHASE A
PHASE B
PHASE C
PHASE D

Fig. 1

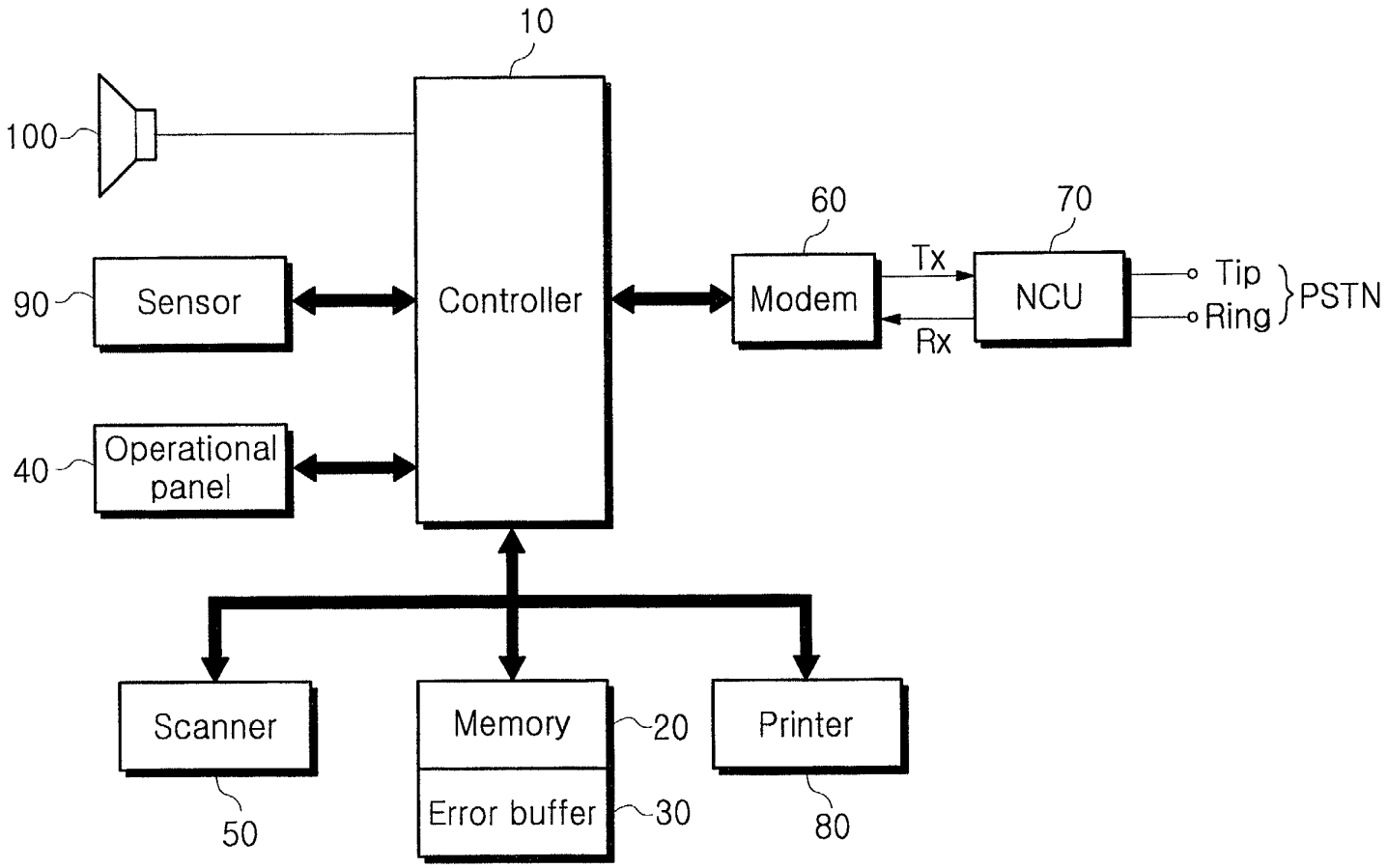
10
100
90
Sensor
Controller
60
Modem
Tx
Rx
70
NCU
Tip
Ring
PSTN
40
Operational panel
Scanner
50
Memory
20
Error buffer
30
Printer
80

Fig. 2

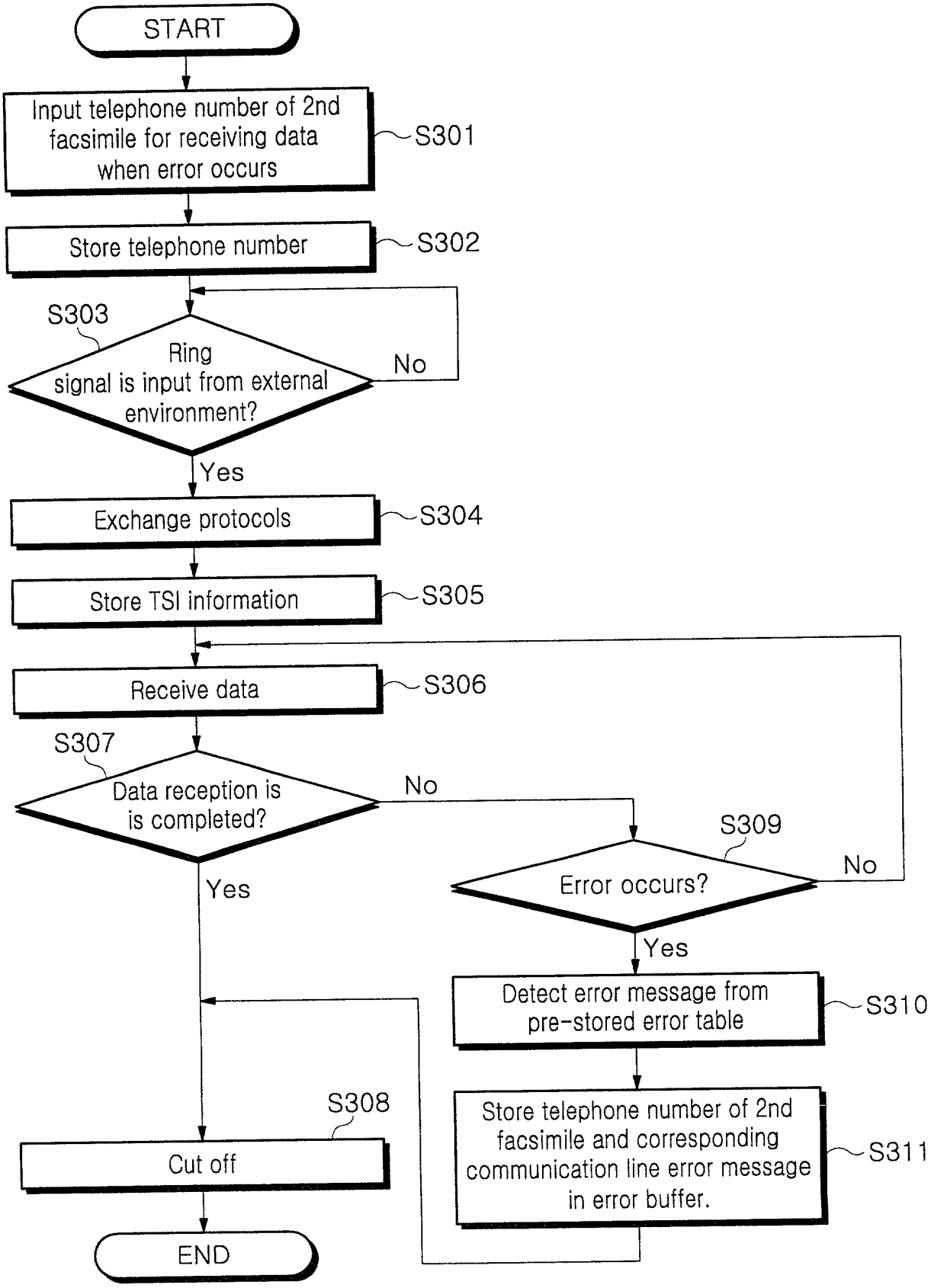
START
Input telephone number of 2nd facsimile for receiving data when error occurs
S301
Store telephone number
S302
S303
Ring signal is input from external environment?
No
Yes
Exchange protocols
S304
Store TSI information
S305
Receive data
S306
S307
Data reception is is completed?
No
Yes
S309
Error occurs?
No
Yes
Detect error message from pre-stored error table
S310
Store telephone number of 2nd facsimile and corresponding communication line error message in error buffer.
S311
S308
Cut off
END

Fig. 3

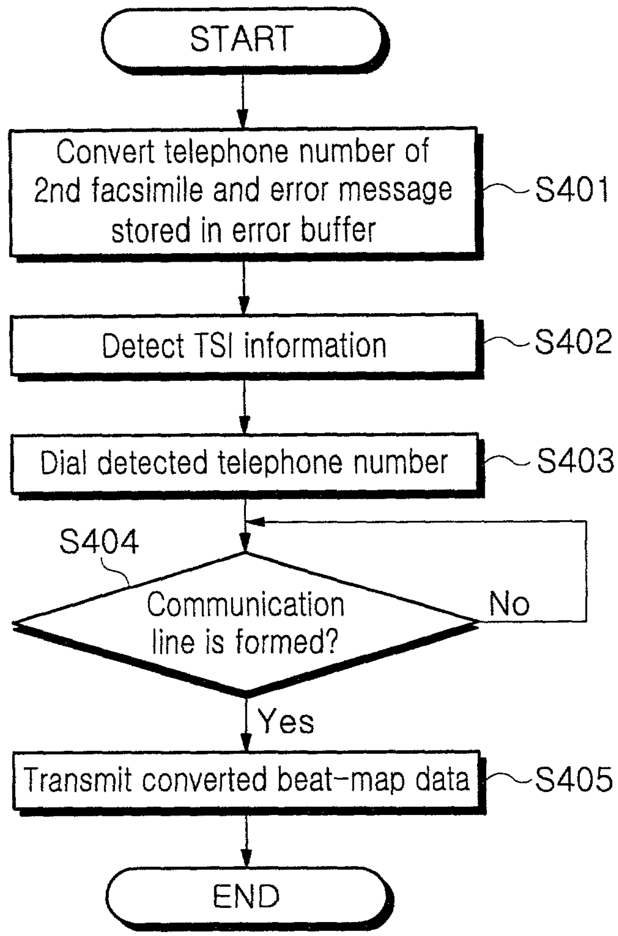

Fig. 4

2nd receiving part & Contents of error report

- DATE : 1999. 09. 09
- ERROR : RECEIVE MEMORY FULL
- 2nd receiving part : 0331-280-1744

Error occurs as described above thank you for sending fax to 2nd receiving part

Fig. 5

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

YANG-YEON LEE

Serial No.:	*To Be Assigned*	Examiner:	*To Be Assigned*
Filed:	13 July 2000	Art Unit:	*To Be Assigned*

For: METHOD FOR INFORMING A TRANSMITTING PART OF ERROR OCCURRENCE IN A RECEIVING PART OF A FACSIMILE

TRANSMITTAL OF DECLARATION

The Assistant Commissioner
of Patents
Washington, D.C. 20231

Sir:

Accompanying this transmittal is a Declaration for the above-referenced application.

Respectfully submitted,

Robert E. Bushnell
Reg. No.: 27,774
Attorney for the Applicant

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Folio: P56063
Date: 7/13/00
I.D.: REB/sys

PTO/SB/01(6/95) **DECLARATION** Docket No. P56063

AS A BELOW NAMED INVENTOR, I hereby declare that
My residence, post office address and citizenship are as stated next to my name
I believe that I am the original, first and sole (*if only one name is listed below*), or an original, first and joint inventor (*if plural names are listed below*), of the subject mater which is claimed and for which a patent is sought on the invention entitled

TITLE: METHOD FOR INFORMING A TRANSMITTING PART OF ERROR OCCURRENCE IN A RECEIVING PART OF A FACSIMILE

the specification of which either is attached hereto or otherwise accompanies this Declaration, or:

☐ was filed in the U S. Patent & Trademark Office on _____ and assigned Serial No._____.

☐ and (*if applicable*) was amended on _____.

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above. I acknowledge the duty to disclose information which is material to patentability and to the examination of this application in accordance with Title 37 of the Code of Federal Regulations · 1.56 I hereby claim foreign priority benefits under Title 35 U S C Code · 119(a)-(d) or · 365(b) of any foreign application(s) for patent or inventor's certificate, or · 365(a) of any PCT International application which designated at least one country other than the United States, or · 119(e) of any United States provisional application(s), listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed

			Priority Claimed
29100/1999	Republic of Korea	19/July/1999	Yes[×] No[ ]
(Application Number)	*(Country)*	*(Day/Month/Year filed)*	
			Yes[ ] No[ ]
(Application Number)	*(Country)*	*(Day/Month/Year filed)*	

I hereby claim the benefit under Title 35, U S C Code, · 120, of any United States applications(s), or · 365(c) of any PCT International application designating the United States, listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States or PCT international application(s) in the manner provided by the first paragraph of Title 35, U.S Code, · 112, I acknowledge the duty to disclose information material to patentability as defined in Title 37 The Code of Federal Regulations, · 1 56(a) which became available between the filing data of the prior application and the national or PCT international filing data of this application

(Application Serial No.)	*(Filing Date)*	*(STATUS: patented, pending, abandoned)*
(Application Serial No.)	*(Filing Date)*	*(STATUS: patented, pending, abandoned)*

I hereby revoke all previously granted powers o attorney and appoint the following attorneys Robert E. Bushnell, Reg No 27,774, Michael D. Parker, Reg No. 34,973, and Henry M Zykorie, Reg No. 27,477, to prosecute this application and to transact all business in the U.S Patent & Trademark Office connected therewith and with any divisional, continuation, continuation-in-part, reissue or re-examination application, with full power of appointment and with full power to substitute an associate attorney or agent, and to receive all patents which may issue thereon, and request that all correspondence be addressed to

Robert E Bushnell
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Washington , D C 20005-1202 Area Code 202-638-5740

I HEREBY DECLARE that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true, and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under · 1001 of Title 18 U.S Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon

FULL NAME OF FIRST OR SOLE INVENTOR Yang-Yeon LEE Citizenship· Republic of Korea

Inventor's signature· _____ Date July 6, 2000

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FULL NAME OF SECOND JOINT INVENTOR· _____ Citizenship_____

Inventor's signature. _____ Date: _____

Residence & Post Office Address

FULL NAME OF THIRD JOINT INVENTOR _____ Citizenship_____

Inventor's signature _____ Date _____

Residence & Post Office Address

FULL NAME OF FOURTH JOINT INVENTOR _____ Citizenship_____

Inventor's signature _____ Date _____

Residence & Post Office Address